	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	0	primer same each same different	USPAT	2001/01/03 21:24			0
2	BRS	L2	0	primer same "each" same different	USPAT	2001/01/03 21:24			0
3	BRS	L3	6037	primer same different	USPAT	2001/01/03 21:25			0
4	BRS	L4	2134	primer near4 different	USPAT	2001/01/03 21:25			0
5	BRS	L5	0	(all adj primer) near4 different	USPAT	2001/01/03 21:25			0
6	BRS	L6	0	(all near4 primer) same (primer near5 differen$7)	USPAT	2001/01/03 21:26			0
7	BRS	L7	5403	primer near4 design$9	USPAT	2001/01/03 21:27			0
8	BRS	L8	0	(primer near4 design$9) same differn$4	USPAT	2001/01/03 21:27			0
9	BRS	L9	1009	l7 and l4	USPAT	2001/01/03 21:28			0
10	BRS	L10	0	"all primers are different"	USPAT	2001/01/03 21:31			0
11	BRS	L11	0	"consisting essential of seq"	USPAT	2001/01/03 21:30			0
12	BRS	L12	0	"consisting essentially of seq"	USPAT	2001/01/03 21:30			0
13	BRS	L13	0	"consisting essentially of"	USPAT	2001/01/03 21:31			0
14	BRS	L14	0	all adj primers adj are adj different	USPAT	2001/01/03 21:31			0
15	BRS	L15	1111	primer same optimiz$9	USPAT	2001/01/03 21:31			0
16	BRS	L16	266	primer near5 optimiz$9	USPAT	2001/01/03 21:32			0
17	BRS	L17	7	l16 and (selection adj criteria)	USPAT	2001/01/03 21:39			0
18	BRS	L18	5	unique same primer same (plurality near5 primer)	USPAT	2001/01/03 21:39			0

DOCUMENT-IDENTIFIER: US 6124092 A
TITLE: Multiplex polynucleotide capture methods and compositions

ABPL:
The invention relates to methods and compositions for simultaneously generating a plurality of polynucleotide sequencing ladders or PCR amplification products. Each sequencing ladder is generated from a recoverable primer, i.e., an oligonucleotide primer comprising a recovery tag. The recovery tag may be an oligonucleotide. Each sequencing ladder has a unique recovery tag. After the generation of the multiple sequencing ladders, the different sequencing ladders are separated from one another, i.e., purified, by binding to recovery tag binding compounds that have been immobilized on one or more solid supports. The recovery tag binding compounds are immobilized on the solid support in an addressable manner, i.e., the recovery tag binding compounds have distinct locations on the solid support. The binding of the sequencing ladders to the recovery tag binding compounds serves to separate the different polynucleotide sequencing ladders present in a given solution. The separated sequencing ladders may then be released from the immobilized recovery tag binding compounds and subsequently resolved into individual components of the sequencing ladders or PCR products. The subject methods of separating sequencing ladders simultaneously generated in the same vessel may readily be adapted to separate a plurality of simultaneously generated polynucleotide amplification products. Other aspects of the invention are kits for the generation or recovery of a plurality of polynucleotide sequencing ladders or amplification products. The kits comprise a plurality of recoverable primers having unique recovery tags. Preferably, the recovery tags are polynucleotides that have substantially the same denaturation temperature when bound to appropriate recovery tag binding compounds, i.e., the primers comprise an integrated set. The kits may further comprise recovery tag binding compounds. The kits may further comprise labeled chain terminators. Other aspects of the invention include polynucleotide recovery devices.

DEPR:
Other aspects of the invention are kits for the generation or recovery of a plurality of polynucleotide sequencing ladders or amplification products. The kits comprise a plurality of recoverable primers having unique recovery tags. The recoverable primers may be supplied in a single solution. Preferably, the recovery tags are polynucleotides that have substantially the same denaturation temperature when bound to appropriate recovery tag binding compounds, i.e., the primers form an integrated set. The kits may further comprise recovery tag binding compounds. The recovery tag binding compounds are preferably supplied immobilized to solid supports in a addressable manner. The kits may further

comprise labeled chain terminators, DNA polymerases, pyrophosphatases, unlabeled chain terminators, DNA polymerase, pyrophosphatase or other components required for PCR or sequencing reactions.

DEPR:
Although the foregoing discussion has been primarily concerned with multiplex methods of sequencing and polynucleotide amplification, it will be readily appreciated by those skilled in the art that the general principles of the inventions may readily be adapted to virtually any molecular biology technique involving the extension of primers. By using a plurality of recoverable primers, each having a unique recovery tag (or functional equivalent thereof), multiple primer extension reactions may be performed simultaneously and the reaction products subsequently separated on the basis of binding to immobilized recovery binding tag compounds. These numerous multiplexed methods of primer extension reactions used are considered to be embodiments of the subject invention. Chain termination sequencing (Sanger method) and PCR are examples of primer extension reactions. The methods of the invention may also be used to provide for multiplexed oligonucleotide ligation assays such as the type described in U.S. Pat. Nos. 4,883,750; 4,988,617; and 5,242,794.